PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	:	Emilio Barbera-Guillem	Examiner	:	Blanchard, David J.
Application No.	:	09/835,759	Group Art	:	1642
Filing Date	:	April 16, 2001	Docket No.	:	26983-98
Confirmation No.	:	5302			
Title	:	**VACCINE AND IMMUNOTHERAPY FOR SOLID NONLYMPHOID TUMOR AND RELATED DYSREGULATION**			

Appeal Related Matters
Board of Patent Appeals and Interferences
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

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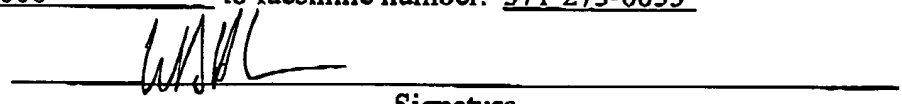
on May 24, 2006 to facsimile number. 571-273-0053



Signature

W. Scott Harders
Typed or printed name of person signing Certificate

Associated Papers:

1. Reply Brief
2. Fee Transmittal
3. PTO 2038

Note: Each paper must have its own certificate of transmission, or this certificate must identify each submitted paper.

PTO/SB/17 (12-04v2)
Approved for use through 07/31/2006. OMB 0651-0032
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Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2005

☑ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT ($) 250.00

Complete If Known	
Application Number	09/835,759
Filing Date	April 16, 2001
First Named Inventor	Emilio Barbera-Guillem
Examiner Name	David J. Blanchard
Art Unit	1642
Attorney Docket No.	26983-98

METHOD OF PAYMENT (check all that apply)

☐ Check ☑ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☑ Deposit Account Deposit Account Number: 02-2051 Deposit Account Name: Benesch, Friedlander

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☑ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☑ Credit any overpayments

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES Fee ($)	FILING FEES Small Entity Fee ($)	SEARCH FEES Fee ($)	SEARCH FEES Small Entity Fee ($)	EXAMINATION FEES Fee ($)	EXAMINATION FEES Small Entity Fee ($)	Fees Paid ($)
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee ($)	Small Entity Fee ($)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims _____ - 20 or HP = _____ x _____ = _____ Fee Paid ($)

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims _____ - 3 or HP = _____ x _____ = _____ Fee Paid ($)

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims: Fee ($) _____ Fee Paid ($) _____

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets _____ - 100 = _____ Extra Sheets / 50 = _____ Number of each additional 50 or fraction thereof (round up to a whole number) x Fee ($) _____ = Fee Paid ($) _____

4. OTHER FEE(S)

Non-English Specification, $130 fee (no small entity discount) Fees Paid ($) _____

Other (e.g., late filing surcharge): Appeal Brief $250.00

SUBMITTED BY

Signature		Registration No. (Attorney/Agent) 42,629	Telephone 216-363-4443
Name (Print/Type)	W. Scott Harders		Date May 24, 2006

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REPLY BRIEF

Sir/Madam:

Pursuant to 37 C.F.R. § 41.41, Appellant submits this Reply Brief in connection with the above-referenced application. This Reply Brief, filed within two months of the Examiner's Answer with a proper certificate of mailing/transmission is timely filed. The fees required under 37 CFR § 41.20 are detailed and properly paid as stated in the accompanying Fee Transmittal Form.

Law and Argument

The science here is demanding. But the proper bases under which claims may be rejected are certain. At end, the Office does not show that the claims at hand are either anticipated or rendered obvious by the various references of record. For the reasons set forth below supplementing those in the Amended Appeal Brief, Appellant requests that the application now be passed to allowance.

Rejections under 35 U.S.C. § 102

Normally, only one reference should be used in making a rejection under 35 U.S.C. § 102. When the primary reference is silent about an asserted inherent characteristic, the gap may be filled by recourse to extrinsic evidence that makes the missing matter clear (MPEP 2131.01).

Here, the Office asserts that Noguchi discloses both (a) an immunotherapeutic composition for effecting B cell depletion and (b) tumor-associated antigen capable of inducing a cell mediated immune response comprising a TH1 response. The Office appears to concede that Noguchi does not explicitly disclose the claimed B cell depleting agent, and refers to a second reference, Trinchieri, for the proposition that IL-12 is "interpreted as an effector of B cell depletion" (Examiner's Answer, page 4, line 21). The kernel of the Office's position is located at page 6, line 18 bridging to page 7, line 3, and reproduced here entirely:

> Accordingly, in view of Appellants definition in the specification, Figures 1 and 2 of Trinchieri (the evidence cited by the Examiner), provide extrinsic evidence that IL-12 acts as a negative regulator of TH2 promoting cytokines, such as IL-5, which functions in the proliferation and differentiation of B cells. Appellant acknowledges that TH2 cells support a humoral or antibody mediated immune response wherein B cells produce antibodies; antibodies mediate humoral immunity (2nd full paragraph at pg. 5 of the Brief). Therefore, IL-12 inhibition of TH2 promoting cytokines would necessarily inhibit B cell proliferation and differentiation.

The syllogism appears to be:

- IL-12 inhibits TH2.
- TH2 supports humoral mediated immune response.
- B cells support humoral mediated immune response.
- Thus, since IL-12 inhibits TH2, IL-12 also depletes B cells.

This flawed reasoning is the basis of this appeal. That TH2 and B cells both support humoral mediated immune response does not prove that both react the same to IL-12 (or any other immunotherapeutic composition). There is no teaching in the primary reference, Noguchi, of B cell depletion. That Noguchi discloses IL-12 does not remedy the failure because no support exists in the record for the proposition that IL-12 depletes B cells. Indeed, contrary support exists in the record that IL-12 is not an effector of B cell depletion (Amended Appeal Brief, page 7, line 13 bridging page 8, line 11).

Rejections under 35 U.S.C. § 103

To the extent the obviousness rejections rely on the basis that IL-12 acts to deplete B cells, these rejections are improper for the reasons set forth above,

To the extent the obviousness rejections rely on the anti-CD22 antibody conjugated to the cellular toxin, ricin disclosed in Parkhouse, the rejection is improper and is traversed (despite the Office's mischaracterization that "Appellant does not challenge the motivation or reasonable expectation of success ..." (Examiner's Answer, page 19, lines 9-11)).

In the Examiner's Answer, the Office asserts the motivation to combine the B cell depletion teaching of Parkhouse with a composition for inducing a cell mediated immune response (i.e. TH1) is explicitly disclosed by Apostolopoulos (Examiner's Answer, page 17, lines 5-6). Specifically, the Office states that Apostolopoulos teaches "that induction of a humoral immune response (i.e., TH2 or antibody response) gives poor tumor protection accompanied by little cellular immunity and induction of a cellular immune response (i.e., TH1

response) results in significant tumor protection, cytotoxic T lymphocytes and little antibody production (i.e. TH2 or humoral immune response)."

Appellant, however, is unable to discover any mention in the cited passage pertaining to B cell depletion, let alone the reportedly explicit suggestion. Rather, to reach the conclusion urged by the Office requires a leap that correlates inducing a cellular immune response (i.e., TH1) with depleting B cells. This leap is completely without support in the record. The primary references, including Apostolopoulos, simply do not discuss B cells at all, and an artisan would not find a motivation to make the combination suggested by the Office.

Conclusion

For the reasons set forth above and those contained in the Amended Appeal Brief, Appellant submits that the pending claims are allowable and urges the Board to reverse the Examiner and enter an allowance of all pending claims at an early date.

The Commissioner is hereby authorized to charge any additional fees, or credit any overpayment, to Deposit Account No. 02-2051, referencing Attorney Docket No. 26983-98.

Respectfully submitted,

Dated: May 24, 2006

By: 

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